

**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of

Docket No: Q89815

Hirofumi NAKAMURA

Appln. No.: 10/547,330

Group Art Unit: 1638

Confirmation No.: 7031

Examiner: Brent T PAGE

Filed: September 1, 2005

For: TRANSGENIC PLANT HAVING FRUCTOOLIGOSACCHARIDE ACCUMULATED  
THEREIN AND PROCESS FOR CONSTRUCTING

**LETTER**

**MAIL STOP AMENDMENT**

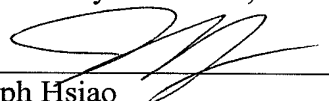
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Further to the Information Disclosure Statement filed September 1, 2005, for the convenience of the Examiner, Applicants are now able to provide, and attach hereto, a copy of an English translation of the International Preliminary Report on Patentability with the Written Opinion of the International Searching Authority.

No additional cited art documents are submitted or listed herewith, since the documents cited in the Written Opinion of the International Searching Authority were previously cited and listed in the Information Disclosure Statement filed September 1, 2005.

Respectfully submitted,

  
\_\_\_\_\_  
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WASHINGTON OFFICE

**23373**

CUSTOMER NUMBER

Date: August 27, 2008

## PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

To:

PCT

Translation

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Applicant's or agent's file reference <b>MEJ-708</b>		Date of mailing (day/month/year)	
		FOR FURTHER ACTION See paragraph 2 below	
International application No. <b>PCT/JP2004/002564</b>	International filing date (day/month/year) <b>02.03.2004</b>	Priority date (day/month/year) <b>03.03.2003</b>	
International Patent Classification (IPC) or both national classification and IPC			
Applicant <b>MEIJI SEIKA KAISHA, LTD.</b>			

## 1. This opinion contains indications relating to the following items:

- |                                     |              |  |
|-------------------------------------|--------------|--|
| <input checked="" type="checkbox"/> | Box No. I    | Basis of the opinion   |
| <input type="checkbox"/>            | Box No. II   | Priority   |
| <input type="checkbox"/>            | Box No. III  | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability   |
| <input type="checkbox"/>            | Box No. IV   | Lack of unity of invention   |
| <input checked="" type="checkbox"/> | Box No. V    | Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input checked="" type="checkbox"/> | Box No. VI   | Certain documents cited  |
| <input type="checkbox"/>            | Box No. VII  | Certain defects in the international application   |
| <input type="checkbox"/>            | Box No. VIII | Certain observations on the international application  |

## 2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

## 3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/JF	Authorized officer
Facsimile No.	Telephone No.

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PCT/JP2004/002564

Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This opinion has been established on the basis of a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
- a. type of material
- ☒ a sequence listing
- ☐ table(s) related to the sequence listing
- b. format of material
- ☐ in written format
- ☒ in computer readable form
- c. time of filing/furnishing
- ☐ contained in the international application as filed.
- ☒ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

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PCT/JP2004/002564

Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1. Statement			
Novelty (N)	Claims	1-12	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	1-12	NO
Industrial applicability (IA)	Claims	1-12	YES
	Claims		NO
2. Citations and explanations:			
Document 1: Plant J, 1997, Vol. 12, No. 5, pages 1057-1065			
Document 2: WO, 01-36622, A2 (De Pont De Nemours and Co.), 25 May, 2001 (25.05.01)			
Document 3: WO, 97-34004, A1 (Meiji Seika Kaisha, Ltd.), 18 September, 1997 (18.09.97)			
Claims 1-12			
The subject matters of claims 1-12 do not appear to involve an inventive step in view of documents 1-3 cited in the ISR.			
Documents 1 and 2 describe a process of creating a transgenic plant where fructooligosaccharide is accumulated by transforming a plant by a gene construct containing a gene to code for fucosyltransferase, which has the effect of converting sucrose into fructooligosaccharide.			
Document 3 describes a gene to code for beta-fructofuranosidase, which is capable of converting sucrose into fructooligosaccharide selectively and efficiently.			
Accordingly there would be no difficulty involved in using the gene to code for beta-fructofuranosidase described in document 3 as a gene to code for an enzyme having the effect of converting sucrose into fructooligosaccharide in the process of creating a transgenic plant where fructooligosaccharide is accumulated, described in documents 1 and 2.			
The promoter, etc., used therein would be chosen from those publicly known by a person skilled in the art in the relevant technical field as preferred.			
It is not found that the constitutions of the subject matters of claims 1-12 could produce a particularly significant effect.			

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Box No. VI

Certain documents cited

## 1. Certain published documents (Rule 43bis.1 and 70.10)

Application No. Patent No.	Publication date (day/month/year)	Filing date (day/month/year)	Priority date (valid claim) (day/month/year)
US 2003/0213013 A1	13.11.2003	07.05.2002	
[EX]			

## 2. Non-written disclosures (Rule 43bis.1 and 70.9)

Kind of non-written disclosure	Date of non-written disclosure (day/month/year)	Date of written disclosure referring to non-written disclosure (day/month/year)
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